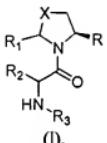


AMENDMENT

In the Claims

1. (Currently Amended) A compound of formula (1),



or pharmaceutically acceptable salt or prodrug thereof, wherein

X is a member selected from the group consisting of CH_2 , CHF and CF_2 :

R is selected from the group consisting of alkylcarbonyl, arylcarbonyl, cyano, heterocyclecarbonyl, $R_1R_2NC(O)-$ and $B(OR_6)_2$. (1-2,3)-dioxaborolane and 4,4,5,5-tetramethyl (1,2,3)-dioxaborolane;

R_1 is selected from the group consisting of alkoxyalkyl, alkyl, alkylcarbonyl, alkenyl, alkynyl, allenyl, arylalkyl, cycloalkyl, cycloalkylalkyl, cyano, haloalkyl, haloalkenyl, heteroalkenylalkyl, and hydroxalkyl;

R_2 and R_3 are independently selected from the group consisting of hydrogen, alkoxyalkyl, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, heterocycle, heterocyclealkyl, and hydroxyalkyl, wherein said heterocycle is further selected from the group consisting of pyrimidine, pyridinyl, and piperidinyl; or

R_2 and R_3 , taken together with the atoms to which they are attached form a mono or bicyclic heterocycle selected from the group consisting of 2-indolinyl, 2-indolyl, 3-isoquinoline, 2-piperazine, 2-piperidine, 2-pyrrolidine, 2-pyrrole, 2-pyridine, 2-quinolinyl, 2-tetrahydroquinolinyl, and 3-tetrahydroisoquinolinyl, wherein said heterocycle may be substituted with 0, 1, 2 or 3 substituents independently selected from alkenyl, alkoxy, alkoxyalkyl, alkoxy carbonyl, alkoxy carbonylalkyl, alkyl, alkyl carbonyl, alkyl carbonylalkyl, alkyl carbonyloxy, alkylsulfonyl, alkylthio, alkynyl, aryl, arylalkoxy, arylalkyl, aryl carbonyl, aryl oxy, carboxy, carboxyalkyl, cyano, cyanoalkyl, formyl, halogen, haloalkyl, hydroxy, hydroxyalkyl, mercapto, nitro, phenyl, R_4R_5N , $R_4R_5NC(O)$, and $R_4R_5NS(O)_2$;

R₄, R₅ and R₆ are each independently selected from the group consisting of hydrogen, alkyl, and arylalkyl;

R_A and R_B are each independently selected from the group consisting of alkyl, alkylcarbonyl, alkoxy carbonyl, alkylsulfonyl; or R_A and R_B taken together with the nitrogen to which they are attached form a ring selected from the group consisting of piperidine, piperazine and morpholine; and

R_C and R_D are each independently selected from the group consisting of hydrogen and alkyl.

2. (Original) The compound according to claim 1, wherein

R is cyano.

3. (Original) The compound according to claim 1, wherein

R is cyano: and

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl.

4. (Original) The compound according to claim 1, wherein

R is cyano;

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl; and

R₂ is a member selected from the group consisting of alkoxyalkyl, alkyl, cycloalkyl, cycloalkylalkyl, arylalkyl, and heterocycloalkyl.

5. (Currently Amended) The compound according to claim 1, wherein

R is cyano;

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl; and

R₂ is a member selected from the group consisting of hydrogen, alkyl, cycloalkyl, and heterocycle further selected from the group consisting of pyrimidine, pyridinyl, and piperidine; and

R₃ is hydrogen.

6. (Currently Amended) The compounds according to claim 5, that is a member selected from the group consisting of

(2S,5R)-5-ethynyl-1-L-leucylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2S)-2-amino-2-cyclopentylethanoyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2S)-2-amino-2-cyclopentylethanoyl)-5-vinylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2S)-2-amino-2-cyclohexylethanoyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5S)-5-ethyl-1-L-leucylpyrrolidine-2-carbonitrile;

(2S,5S)-1-((2S)-2-amino-2-cyclohexylethanoyl)-5-ethylpyrrolidine-2-carbonitrile;

(2S,5S)-1-L-leucyl-5-methylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-L-leucylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2S)-2-amino-2-cyclopentylethanoyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2R)-2-amino-2-cyclohexylethanoyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5S)-1-((2S)-2-amino-2-cyclopentylethanoyl)-5-methylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2S)-2-amino-2-cyclopentylethanoyl)-5-prop-1-ynylpyrrolidine-2-carbonitrile;

(2S,5S)-4,4-difluoro-5-methyl-1-L-valylpyrrolidine-2-carbonitrile;

(2S,5S)-4,4-difluoro-1-L-leucyl-5-methylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2S)-2-amino-2-cyclohexylethanoyl)-5-vinylpyrrolidine-2-carbonitrile;

(2S,5R)-1-((2R)-2-amino-2-cyclopentylethanoyl)-5-vinylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(3-methyl-L-valyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(3-pyridin-4-yl-L-alanyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-L-leucyl-5-prop-1-ynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(3-methyl-L-valyl)-5-prop-1-ynylpyrrolidine-2-carbonitrile;

(2S,5S)-1-L-isoleucyl-5-methylpyrrolidine-2-carbonitrile;
(2S,5S)-1-(3-cyclopropyl-L-alanyl)-5-methylpyrrolidine-2-carbonitrile;
(2S,5S)-5-methyl-1-L-valylpyrrolidine-2-carbonitrile;
(2S,5S)-5-methyl-1-(4-methyl-L-leucyl)pyrrolidine-2-carbonitrile: and
(2S,5S)-1-(3-cyclohexyl-L-alanyl)-5-methylpyrrolidine-2-carbonitrile.

7. (Original) The compound according to claim 1, wherein

R is cyano;

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl; and

R₂ is hydrogen; and

R₃ is cycloalkyl, wherein cycloalkyl is a member selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cycloheptyl, and cyclooctyl.

8. (Original) The compound according to claim 7, that is a member selected from the group consisting of

(2S,5R)-1-{N-((1R,2R,4S)-bicyclo(2.2.1)hept-2-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile:
(2S,5R)-1-{N-((1R,4S)-bicyclo(2.2.1)hept-2-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile:

(2S,5R)-1-(N-1-adamantylglycyl)-5-ethynylpyrrolidine-2-carbonitrile:
(2S,5R)-1-(N-cyclohexylglycyl)-5-ethynylpyrrolidine-2-carbonitrile:
(2S,5R)-5-ethynyl-1-{N-(1-(methoxymethyl)cyclopentyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-{N-((2S)-2-hydroxycyclopentyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-1-(N-cyclopentylglycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-5-ethynyl-1-{N-(1-(hydroxymethyl)cyclopentyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-1-{N-(1-(hydroxymethyl)cyclopentyl)glycyl}-5-prop-1-ynylpyrrolidine-2-carbonitrile:

(2S,5R)-1-(N-cyclopentylglycyl)-5-prop-1-ynylpyrrolidine-2-carbonitrile:

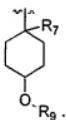
(2S,5S)-1-(N-cyclopentylglycyl)-5-methylpyrrolidine-2-carbonitrile;
(2S,5S)-1-{N-(1-(hydroxymethyl)cyclopentyl)glycyl}-5-methylpyrrolidine-2-carbonitrile;
(2S,5S)-1-{N-((2R,5S)-hexahydro-2,5-methanopentalen-3a(1H)-yl)glycyl}-5-methylpyrrolidine-2-carbonitrile;
(2S,5R)-5-ethynyl-1-{N-(1-(1-hydroxy-1-methylethyl)cyclopentyl)glycyl}pyrrolidine-2-carbonitrile;
(2S,5R)-5-ethynyl-1-{N-((2R,5S)-hexahydro-2,5-methanopentalen-3a(1H)-yl)glycyl}pyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-cyclopentylglycyl)-(N-methyl 1-aminocyclopentanecarboxy)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-cyclopropylglycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-5-ethynyl-1-{N-((5R,7S)-3-hydroxy-1-adamantyl)glycyl}pyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-cycloheptylglycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-cyclobutylglycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-cyclobutylglycyl)-5-prop-1-ynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-{N-((2S)-2-hydroxycyclopentyl)glycyl}-5-prop-1-ynylpyrrolidine-2-carbonitrile;
(2S,5S)-5-methyl-1-{N-((1S,2S,3S,5R)-2,6,6-trimethylbicyclo(3.1.1)hept-3-yl)glycyl}pyrrolidine-2-carbonitrile;
(2S,5S)-1-{N-((5R,7S)-3-hydroxy-1-adamantyl)glycyl}-5-methylpyrrolidine-2-carbonitrile;
(1S,3R)-3-({2-[(2S,5R)-2-cyano-5-ethynylpyrrolidin-1-yl]-2-oxoethyl}amino)-N-(pyridin-2-ylmethyl)cyclopentanecarboxamide;
(1S,3R)-3-({2-[(2S,5R)-2-cyano-5-ethynylpyrrolidin-1-yl]-2-oxoethyl}amino)-N-quinolin-2-ylecyclopentanecarboxamide: and
methyl (1S,3R)-3-({2-[(2S,5R)-2-cyano-5-ethynylpyrrolidin-1-yl]-2-oxoethyl}amino)cyclopentanecarboxylate.

9. (Original) The compound according to claim 1, wherein
R is cyano,

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl; and

R₂ is hydrogen; and

R₃ is



R₇ is a member selected from the group consisting of hydrogen and alkyl; and

R₉ is a member selected from the group consisting of hydrogen, aryl, and heterocycle.

10. (Original) The compound according to claim 9. that is a member selected from the group consisting of

(2S,5R)-5-ethynyl-1-(N-(4-trans-hydroxycyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-trans-{(4'-fluoro-5-(trifluoromethyl)-1,1'-biphenyl-2-yl)oxy}cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-trans-(4-(trifluoromethoxy)phenoxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-hydroxy-1-methylcyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-methyl-4-trans-(pyridin-3-yloxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(4-trans-(5-chloropyridin-3-yl)oxy)cyclohexyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4-trans-(4-cyanophenoxy)cyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-trans-{(5-(trifluoromethyl)pyridin-2-yloxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-trans-(3-pyridin-4-yl-4-(trifluoromethyl)phenoxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-(4- trans (pyridin-2-
yloxy)cyclohexyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-{N-(1-methyl-4- trans (5-cyano-pyridin-2-
yloxy)cyclohexyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-{N-(4- trans (pyrimidin-2-
yloxy)cyclohexyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-{N-(4- trans (5-cyano-pyridin-2-
yloxy)cyclohexyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-(N-(4- trans (4-
(trifluoromethyl)phenoxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-((5-fluoropyridin-3-yl)oxy)-1-
methylcyclohexyl)glycyl)pyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-(N-(4- trans (4-carboxy-
phenoxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4- trans (2-(2-oxopyrrolidin-1-yl)-4-
(trifluoromethyl)phenoxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile:

(2S,5R)-1-{N-(4- trans (4-cyano-2-methoxyphenoxy)cyclohexyl)glycyl}-5-
ethynylpyrrolidine-2-carbonitrile:

(2S,5R)-1-(N-(4- trans ((5-chloropyridin-2-yl)oxy)cyclohexyl)glycyl)-5-
ethynylpyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-{N-(1-methyl-4- trans (pyridin-2-
yloxy)cyclohexyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-(N-(4- trans ((5-fluoropyridin-3-
yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(4- trans ((5-bromopyridin-2-yl)oxy)cyclohexyl)glycyl)-5-
ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-(4- trans (pyridin-3-
yloxy)cyclohexyl)glycyl}pyrrolidine-2-carbonitrile:

(2S,5R)-5-prop-1-ynyl-1-(N-(4-(4-
(trifluoromethyl)phenoxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (4-cyano-2-fluorophenoxy)cyclohexyl)glycyl}-5-
ethynylpyrrolidine-2-carbonitrile:

(2S,5R)-5-ethynyl-1-{N-(4- trans (3-fluorophenoxy)-1-methylcyclohexyl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (3-cyanophenoxy)cyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-methyl-4-((5-(trifluoromethyl)pyridin-2-yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4- trans ((5-chloropyridin-2-yl)oxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4- trans ((4'-fluoro-2-(trifluoromethyl)-1,1'-biphenyl-4-yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4- trans ((4'-fluoro-6-(trifluoromethyl)-1,1'-biphenyl-3-yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4-(3-cyano-4- trans (trifluoromethyl)phenoxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (3-bromophenoxy)cyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4-(3-cyano-4- trans (trifluoromethyl)phenoxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4-(2-cyano-4- trans (trifluoromethyl)phenoxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (3-cyanophenoxy)-1-methylcyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (4-chlorophenoxy)cyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4-(2-cyano-3-(trifluoromethyl)phenoxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4- trans ((6-methyl-4-(trifluoromethyl)pyridin-2-yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4- trans (2-cyano-3-(trifluoromethyl)phenoxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-{4- trans (4-pyridin-4-yl-3-(trifluoromethyl)phenoxy)cyclohexyl}glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4- trans (3-cyano-5-(trifluoromethyl)phenoxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-(4-(4-fluorophenoxy)-1-methylcyclohexyl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-(4-(3-fluorophenoxy)-1-methylcyclohexyl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-methyl-4-((5-(trifluoromethyl)pyridin-2-yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-{4- trans (3-(trifluoromethyl)phenoxy)cyclohexyl}glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4- trans ((3-bromopyridin-2-yl)oxy)cyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4- trans ((4-(trifluoromethyl)pyridin-2-yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-{4- trans ((5-chloropyridin-2-yl)oxy)-1-methylcyclohexyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (3-cyanophenoxy)-1-methylcyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-{4- trans (2-carboxy-4-(trifluoromethyl)phenoxy)cyclohexyl}glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (3-chlorophenoxy)cyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-methyl-4- trans ((5-(trifluoromethyl)pyridin-2-yl)oxy)cyclohexyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(4- trans (4-bromophenoxy)cyclohexyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(4- trans hydroxycyclohexyl)glycyl)-5-prop-1-ynylpyrrolidine-2-carbonitrile;

(2S,5S)-1-(N-(4- trans hydroxycyclohexyl)glycyl)-5-methylpyrrolidine-2-carbonitrile; and

6-{{4-((2-[(2S,5R)-2-cyano-5-ethynylpyrrolidin-1-yl]-2-oxoethyl)amino)-4-methylcyclohexyl}oxy]-N,N-dimethylnicotinamide.

11. (Original) The compound according to claim 1, wherein

R is cyano;

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl;

R₂ is hydrogen;

R₃ is alkyl; wherein the alkyl group of R₃ is optionally substituted with a member of the group consisting of alkoxy, alkoxy carbonyl, alkoxy carbonyl NR_a, alkyl NR_a, carboxy, and hydroxy; and

R_a is a member selected from the group consisting of hydrogen and alkyl.

12. (Original) The compound according to claim 11, that is selected from the group consisting of

(2S,5R)-5-ethynyl-1-(N-(1,1,3,3-tetramethylbutyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(tert-butyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(1,1-dimethylpropyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-(3-(methylamino)propyl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(4-*tert*-butoxycarbonylbutyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(3-hydroxy-2,2-dimethylpropyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-(3-(N-*tert*-butoxycarbonyl-N-methylamino)propyl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-carboxybutyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(3-isopropoxypropyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5S)-1-(N-isopropylglycyl)-5-methylpyrrolidine-2-carbonitrile;

(2S,5S)-1-(N-(tert-butyl)glycyl)-5-methylpyrrolidine-2-carbonitrile; and

(2R,5S)-1-[(tert-butylamino)acetyl]pyrrolidine-2,5-dicarbonitrile.

13. (Original) The compound according to claim 1, wherein

R is cyano;

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl; and

R₂ is hydrogen; and

R₃ is a member selected from the group consisting of aryl and heterocycle; wherein said heterocycle is a member selected from the group consisting of pyrimidine, pyridinyl, and piperidine azetidinyl, azepanyl, aziridinyl, diazepinyl, 1,3-dioxolanyl, dioxanyl, dithianyl, furyl, imidazolyl, imidazolinyl, imidazolidinyl, isothiazolyl, isothiazolinyl, isothiazolidinyl, isoxazolyl, isoxazolinyl, isoxazolidinyl, morpholinyl, oxadiazolyl, oxadiazolinyl, oxadiazolidinyl, oxazolyl, oxazolinyl, oxazolidinyl, piperazinyl, pyranyl, pyrazinyl, pyrazolyl, pyrazolinyl, pyrazolidinyl, pyridinyl, pyrimidinyl, pyridazinyl, pyrrolyl, pyrrolinyl, pyrrolidinyl, tetrahydrofuranyl, tetrahydrothienyl, tetrazinyl, tetrazolyl, thiadiazolyl, thiadiazolinyl, thiadiazolidinyl, thiazolyl, thiazolinyl, thiazolidinyl, thietyl, thiomorpholinyl, 1,1-dioxidethiomorpholinyl (thiomorpholine sulfone), thiopyranyl, triazinyl, triazolyl, and trithianyl.

14. (Original) The compound according to claim 13, that is a member selected from the group consisting of

(2S,5R)-5-ethynyl-1-(N-tetrahydro-2H-pyran-4-ylglycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-tetrahydrofuran-3-ylglycyl)pyrrolidine-2-carbonitrile; and

(2S,5S)-1-(N-2,3-dihydro-1H-inden-1-ylglycyl)-5-methylpyrrolidine-2-carbonitrile.

15. (Original) The compound according to claim 1, wherein

R is cyano;

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl; and

R₂ is hydrogen; and

R₃ is a member selected from the group consisting of arylalkyl and heterocyclealkyl.

16. (Currently Amended) The compound according to claim 15, that is a member selected from the group of

(2S,5R)-5-ethynyl-1-{N-(2-(4-fluorophenyl)-1,1-dimethylethyl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5S)-1-{N-(2-(3,4-dimethoxyphenyl)ethyl)glycyl}-5-methylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(tetrahydrofuran-2-ylmethyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(pyridin-2-ylmethyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(2-pyridin-4-ylethyl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-((1-tert-butoxycarbonyl)piperidin-4-yl)methyl}glycyl}pyrrolidine-2-carbonitrile: and

(2S,5R)-5-ethynyl-1-(N-(4-iodobenzyl)glycyl)pyrrolidine-2-carbonitrile.

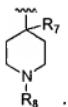
17. (Original) The compound according to claim 1, wherein

R is cyano.

R₁ is a member selected from the group consisting of alkyl, alkenyl, and alkynyl;

R₂ is hydrogen;

R₃ is



R₇ is a member selected from the group consisting of hydrogen, alkyl and alkoxyalkyl; and

R₈ is a member selected from the group consisting of hydrogen, alkylcarbonyl, aryl and heterocycle.

18. (Original) The compound according to claim 17. that is a member selected from the group consisting of

(2S,5R)-5-ethynyl-1-(N-(4-methyl-1-pyridin-2-yl)piperidin-4-yl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-methyl-1-(3-cyano-pyridin-2-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-(3-cyano-pyridin-3-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-{N-(4-methyl-1-(4-carboxy-pyridin-2-yl)piperidin-4-yl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-methyl-1-(5-(trifluoromethyl)pyridin-2-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(1-(5-chloropyridin-2-yl)-4-methylpiperidin-4-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-pyridin-2-yl)piperidin-4-yl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-methyl-1-(4-(trifluoromethyl)pyrimidin-2-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-methyl-1-(5-carboxy-pyridin-2-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-methyl-1-(5-cyano-pyridin-3-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-tert-butoxycarbonyl-piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-5-cyano-pyridin-2-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(1-(3-cyanophenyl)-4-methylpiperidin-4-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(4-methyl-1-(4-(trifluoromethyl)pyridin-2-yl)piperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-piperidin-4-ylglycyl)pyrrolidine-2-carbonitrile; and

(2S,5R)-5-ethynyl-1-({{4-methyl-1-(5-nitropyridin-2-yl)piperidin-4-yl}amino}acetyl)pyrrolidine-2-carbonitrile; and

(2S,5R)-5-ethynyl-1-({{4-methyl-1-[5-(methylsulfonyl)pyridin-2-yl]piperidin-4-yl}amino}acetyl)pyrrolidine-2-carbonitrile.

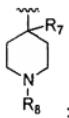
19. (Original) The compound according to claim 1, wherein

R is cyano;

R₁ is selected from the group consisting of alkyl, alkenyl, and alkynyl; and

R₂ is hydrogen; and

R₃ is



R₇ is a member selected from the group consisting of hydrogen, alkyl and alkoxyalkyl; and

R₈ is a member selected from the group consisting of arylcarbonyl and heterocyclecarbonyl.

20. (Currently Amended) The compound according to claim 19, that is a member selected from the group consisting of

(2S,5R)-5-ethynyl-1-{N-(4-methyl-1-(4-methoxycarbonylbenzoyl)piperidin-4-yl)glycyl}pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(1-(4-chlorobenzoyl)piperidin-4-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-5-ethynyl-1-(N-(1-isonicotinoyl-4-methylpiperidin-4-yl)glycyl)pyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(1-(4-chlorobenzoyl)-4-methylpiperidin-4-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(1-(4-cyanobenzoyl)-4-methylpiperidin-4-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile; and

(2S,5R)-1-{N-(1-(4-bromobenzoyl)-4-methylpiperidin-4-yl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile.

21. (Currently Amended) The compound according to claim 1, wherein
R is cyano;
R₁ is a member selected from the group consisting of alkyl, alkenyl, alkynyl, allenyl and cycloalkyl; and
R₂ is hydrogen; and
R₃ is a member selected from the group consisting of aryl-O-alkyl-, aryl-NH-alkyl-, heterocycle-O-alkyl- and heterocycle-NH-alkyl-.

22. (Currently Amended) The compound according to claim 21, that is a member selected from the group consisting of

(2S,5R)-1-{N-(1,1-dimethyl-2-(5-cyano-pyridin-2-yloxy)ethyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-{N-(1,1-dimethyl-2-(quinolin-4-ylamino)ethyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-{N-(2-(1,3-benzothiazol-2-ylamino)-1,1-dimethylethyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-{1,1-dimethyl-2-((3-cyano-6-methylpyridin-2-yl)amino)ethyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-(1,1-dimethyl-2-((5-(trifluoromethyl)pyridin-2-yl)oxy)ethyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-{1,1-dimethyl-2-((3-cyano-6-methylpyridin-2-yl)oxy)ethyl}glycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-{N-(1,1-dimethyl-2-(3-cyanopyridin-2-ylamino)ethyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-(N-(1,1-dimethyl-2-((4-(trifluoromethyl)pyrimidin-2-yl)amino)ethyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile;
(2S,5R)-1-{N-(1,1-dimethyl-2-(5-methoxycarbonylpyridin-2-ylamino)ethyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(2-(2-cyano-5-fluorophenoxy)-1,1-dimethylethyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(2-((3-chloro-5-(trifluoromethyl)pyridin-2-yl)amino)ethyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-{N-(1,1-dimethyl-2-(5-cyano-pyridin-2-ylamino)ethyl)glycyl}-5-ethynylpyrrolidine-2-carbonitrile;

(2S,5R)-1-(N-(2-(4-carboxy-anilino)-1,1-dimethylethyl)glycyl)-5-ethynylpyrrolidine-2-carbonitrile; and

(2S,5S)-5-methyl-1-{N-(2-(5-cyano-pyridin-2-ylamino)ethyl)glycyl}pyrrolidine-2-carbonitrile.

23. (Currently Amended) The compound according to claim 1, wherein

R is cyano; and

R₁ is selected from the group consisting of alkyl, alkenyl, and alkynyl; and

~~R₂ and R₃ taken together with the atoms they are attached form a mono- or biyclic heterocycle selected from the group consisting of 3-isoquinoline, 2-pyrrolidinyl, 2-quinolinyl, 2-tetrahydroquinolinyl, and 3-tetrahydroisoquinolinyl.~~

24. (Currently Amended) The compound according to claim 23. that is a member selected from the group consisting of

(2S,5R)-5-ethynyl-1-((3S)-1,2,3,4-tetrahydroisoquinolin-3-ylcarbonyl)pyrrolidine-2-carbonitrile;

(2S,5S)-4,4-difluoro-5-methyl-1-((5S)-5-methyl-L-prolyl)pyrrolidine-2-carbonitrile;

(2S,5S)-5-methyl-1-((3S)-1,2,3,4-tetrahydroisoquinolin-3-ylcarbonyl)pyrrolidine-2-carbonitrile;

(2S,5S)-5-methyl-1-L-prolylpyrrolidine-2-carbonitrile: and

(2S,5S)-5-methyl-1-((5S)-5-methyl-L-prolyl)pyrrolidine-2-carbonitrile.

25. (Original) A method of treating diabetes, comprising administration of a therapeutically effective amount of a compound of formula (I).

26. (Original) A method of treating type II diabetes, comprising administration of a therapeutically effective amount of a compound of formula (I).
27. (Original) A method of treating hyperglycemia, comprising administration of a therapeutically effective amount of a compound of formula (I).
28. (Original) A method of treating Syndrome X, comprising administration of a therapeutically effective amount of a compound of formula (I).
29. (Original) A method of treating hyperinsulinemia, comprising administration of a therapeutically effective amount of a compound of formula (I).
30. (Original) A method of treating obesity, comprising administration of a therapeutically effective amount of a compound of formula (I).